

REMARKS

Responsive to the Official Action mailed February 18, 2004, applicants have further amended the claims of their application in an earnest effort to place this case in condition for allowance. Specifically, claim 2 has been canceled, independent claim 1 amended, and dependent claims 3, 4, 5, and 10 revised. Reconsideration is respectfully requested.

As discussed in the Specification, the present nonwoven fabric/film laminate has found particular utility in connection with the construction industry as use as a so-called "housewrap", that is, a relatively thin barrier layer integrated into a building during construction to perform multiple purposes. During construction, the housewrap material desirably serves to protect the structure from the elements while it is under construction, with these types of materials desirably exhibiting sufficient liquid impermeability as to limit ingress by rain, especially infiltration caused by wind-driven rain. These types of materials serve the additional purpose of preventing excessive air infiltration, thereby desirably increasing the effectiveness of a building's insulation material.

Thus, a housewrap material must exhibit certain physical properties to be effective for this specific type of application. While the material must exhibit sufficient impermeability to liquid water, as measured by hydrostatic head, a minimum moisture vapor transmission rate (MVTR) is required to insure that water vapor (or liquid water) which infiltrates the wall cavity can easily escape, and not cause extended damage. At the same time, the material must exhibit sufficient

resistance to air infiltration, and also exhibit sufficient strength as to withstand wind forces after installation, and the moderate level of physical abuse to which the material may be subjected during construction.

To this end, the present invention is directed to a laminate material comprising a spunbond polypropylene nonwoven fabric layer, which imparts desirable strength to the laminate construct, and which can be efficiently made on typical spunbonding equipment. The fabric/film laminate of the present invention further includes a monolithic, acrylate/polyester breathable film coating applied to the polypropylene nonwoven fabric layer, in direct contact with the fabric layer. Notably, this specific film formulation permits the resultant laminate construct to exhibit the necessary hydrostatic head performance, and moisture vapor permeability. Additionally, as discussed at pages 5 and 6 of the specification, use of the monolithic film in combination with the claimed spunbond polypropylene nonwoven fabric layer provides resultant laminate construct exhibiting the desired strength, while avoiding use of excessively costly fabric material.

The pending claims also specify the formation of the spunbond polypropylene fabric from resin exhibiting a melt flow rate (MFR) between about 6 and 16. As discussed at page 6 of the Specification, manufacture of the fabric of the disclosed laminate results in a fabric exhibiting desirably high strength, when compared to similar formation of a fabric from a typical 35 MFR polypropylene resin.

In the Action, the Examiner has relied upon U.S. Patent No. 5,308,691, to Lim et al., in view of U.S. Patent No. 5,837,352, to English et al., and U.S. Patent No.

6,541,072, to Doyle et al. However, it is believed that applicants' novel fabric/film laminate is clearly patentably distinct from these references, even when combined, and accordingly, the Examiner's rejection is respectfully traversed.

In the Action, the Examiner specifically acknowledges that the principal Lim et al. reference fails to anticipate applicants' claimed laminate construct, in stating that "Lim differs from the claimed invention because it describes a meltblown later and does not state film." Without belaboring the point, this is a fundamental shortcoming in the teachings of the principal reference, which fails to teach or suggest formation of a fabric/film laminate construct having a highly desirable combination of physical properties, in part by the cooperation provided between the fabric and film components of the laminate. As acknowledged by the Examiner, the Lim et al. reference simply does not teach or suggest the formation of a laminate including a *monolithic film layer*, and as such, this reference clearly can not teach or suggest the formation of such a fabric/film laminate construct, including selection of a spunbond polypropylene fabric, and a monolithic film layer, as specified in the claims to achieve the desired strength, impermeability, and breathability characteristics of the present invention.

In the Action, the Examiner has relied upon the English et al. reference for its teachings relating to a film/nonwoven laminate, but it is important to note that this patent principally contemplates such laminates for use in *personal care products*, and as such, clearly does not teach or suggest formation of a fabric/film laminate construct exhibiting physical properties of the presently claimed material. In

particular, this reference does not teach or suggest use of a spunbond nonwoven fabric layer having a basis weight between about 60 to 100 grams per square meter, as claimed. Rather, for use in personal care products, in significant distinction from housewrap applications, this patent employs relatively lightweight fabric, such as 17 grams per square meter spunbond (Example 1), 29.1 grams per square meter spunbond (Example 2), and 13.4 grams per square meter spunbond (Example 3). Thus, in each of the specific examples, the disclosed fabric component is *less than half* the basis weight as specified in the pending claims.

As such, applicants must question whether those skilled in the art would consider the relatively lightweight fabric constructs of the English et al. reference as teaching or suggesting any modification of the principal Lim et al. reference, the deficiencies in the teaching of which have been expressly acknowledged in the Action. Reference is respectfully made to M.P.E.P. Section 2143.01, which specifically admonishes that "the proposed modification cannot change the principle of operation of a reference," and that under such circumstances, "the teachings of the reference are not sufficient to render the claims *prime facie* obvious" (citation omitted). It is understood that the thrust of this M.P.E.P. Section is to caution against use of an applicants' own disclosure in formulating an obviousness rejection by combining diverse teachings of the prior art.

In the Action, the Examiner has made reference to the Doyle et al. reference as overcoming the deficiencies in the teachings in Lim et al. and English et al. in teaching the present fabric/film laminate, as claimed. However, it is respectfully

maintained that Doyle et al. further *teaches away*, from applicants' claimed laminate material, in that the teachings of Doyle et al. are *specifically limited* to the inclusion of a *primer*, for uniting the disclosed fabric and film layers. In contrast, applicants' claimed laminate material specifies that the film coating is in *direct contact* with the spunbond polypropylene, promoting cost-effective manufacture, but still providing the resultant fabric with the desired strength, impermeability, and vapor transmission characteristics. Again, to pick and choose among the diverse teachings of the prior art, with the guidance of applicants' own claims, cannot provide a proper basis for rejection under 35 U.S.C. §103.

In view of the foregoing, formal allowance of claims 1, and 3-13 is believed to be in order and is respectfully solicited. Should the Examiner wish to speak with applicants' attorneys, they may be reached at the number indicated below.

The Commissioner is hereby authorized to charge any additional fee which may be required in connection with this submission to Deposit Account No. 23-0785.

The Commissioner is hereby authorized to charge any additional fees which may be required in connection with this submission to Deposit Account No. 23-0785.

Respectfully submitted,

By 
Stephen D. Geimer, Reg. No. 28,846

WOOD, PHILLIPS, KATZ, CLARK & MORTIMER
500 West Madison Street, Suite 3800
Chicago, Illinois 60661-2511
312/876-1800